omy and Geology the struggle is nearly over. Out of this struggle has sprung the fatal error of believing that our knowledge in these branches does not contradict Genesis, or that a reconciliation is possible. But with biology the struggle is now going on. It is imagined that the six days mean really periods, although from the context the meaning is shown to clearly agree with the words, since the morning and evening are given to limit the term and decide the intention. It cannot, indeed, be too often remembered that people did not write in early times what they did not mean. The study of Genesis, or the origin of things, religion must surrender to the sciences."

Société d'Anthropologie de Paris. Bureau for 1880. President, M. Ploix; vice-presidents, M. Parrot and M. Thulié; secretaries, MM. Bordier, Pozzi and Magitot; curator, M. Topinard; librarian, M. Dureau; treasurer, M. Leguay; publishing committee, MM. de Ranse, Bataillard, Dally.

BIBLIOGRAPHY.—

Eunuques en Chine, Les.—*Rev. Crit. d'Histoire*, Mar.

GANNETT, H.—Prehistoric ruins in So. Colorado. *Pop. Science Month.*, March.

GASTER, DR.—Jewish and comparative Folk-lore. *Monatsschr. f. Gesch. d. Judenthums*, Jan.

GOMME, G. L.—Folk-lore and the Folk-lore Society. The *Antiquary*, Jan.

GUYAN, M.—De l'origine des Religions. *Rev. Philosophique*, Dec.

Jade and the primitive Art-workmen. *Builder*, Jan. 31.

JOLY, J —The Origin of Norse Mythology. *Academy*, Jan. 24.

LECLERCQ, B.—Histoire de la Divination dans l'antiquité. *Rev. Critique d'Histoire*, Dec.

LEMLY, H. R.—Among the Arrapahoes, *Harper's Mag.*, March.

L'Enfant chez les Sauvages et chez les Civiliseés. *Rev. Britannique*, Nov.

MASQUERAY E.—Comparison d'un Vocabulaire du Dialecte des Zenaya avec les Vocabulaires Correspondants des Dialectes des Chacoia et des Beni-Uzab. *Arch. d. Missions Scient.*, Dec.

MORSE E. S.—Dolmens in Japan. *Pop. Science Month.*, March.

QUATREFAGES, A. DE—Review of Dr. Daniel Wilson's memoir entitled "Some American illustrations of the evolution of new varieties of man," in *Rev. Scientifique*, Feb. 14, 1880.

RADCLIFFE DR.—On the pedigree of man. *Contemp. Rev.*, Feb.

REDDING, B. B.—Prehistoric Treasures. *Californian*, Feb.

ROEPSTORFF, F.-A., DE—Les Iles Andaman. Extract from the author's report to the *Société générale des Prisons* upon the penal colonies of the Andaman islands. *Rev. Scientifique*, Jan. 3, 1880.

ST. BONAVENTURE.—L'Origine des Idees. *Ann. d. Philos. Chretienne*, Feb.

SPENCER, HERBERT—Ceremonial Institutions; being Part IV of "The Principles of Sociology" (the first portion of Vol. II).

GEOLOGY AND PALÆONTOLOGY.

ARTIFICIAL FORMATION OF THE DIAMOND.—Great interest has been excited in England during the last few months, by several reports of the artificial manufacture of the diamond. The earlier reports appear to have been founded in error, but success seems

at length to have attended the labors of Mr. Hannay, of Glasgow. The method adopted, is by taking advantage of the affinity displayed by hydrogen for certain metals, especially magnesium, at a very high temperature, forming extremely stable compounds with them. When carbon is by this means set free from a hydrocarbon in presence of a stable compound, containing nitrogen, the whole being near a red heat and under a very high pressure, the carbon is so acted on by the nitrogen compound, that it is obtained in the clear transparent form of the diamond. The carbon thus obtained is as hard as natural diamond, with a specific gravity, ranging as high as 3. 5, scratching all other crystals, and it does not effect polarized light. Mr. Hannay obtained crystals with curved faces belonging to the octohedral form, the diamond being the only substance that crystallizes in this manner. The crystals burn easily on thin platinum foil, over a good blowpipe and leave no residue, and after two days immersion in hydrofluoric acid, they show no signs of dissolving, even when boiled. On heating a splinter in the electric arc, they burn black, a very characteristic reaction of the diamond. At a recent meeting of the Royal Society, where a brief account of Mr. Hannay's discovery was read, Mr. N. S. Maskelyne, F.R.S., the keeper of the mineralogical collection at the British Museum, confirmed the statements that the crystals sent to him by Mr. Hannay, possessed all the properties of the diamond. Mr. Hannay has written to the London papers, to allay the fears of diamond merchants as to a possible heavy fall in the value of diamonds, stating that the cost of the process is so great that it will probably never amount to more than a laboratory experiment. The great difficulty lies in the construction of an inclosing vessel, strong enough to withstand the enormous pressure and high temperature, tubes constructed on the gun-barrel principle, with a wrought iron coil, of only half an inch bore, and four inches external diameter, being torn open in nine cases out of ten.—*A. W. Bennett.*

Corrections of the Geological Maps of Oregon.—In the existing Geological maps of Oregon, the Coast range is represented as composed of Archæan rocks. This is a serious error, Prof. Newberry has already stated (U. S. Pac. R. R. Surveys, Vol. vi, pt. ii, p. 29), that the fossils of the range are of an age not older than the Miocene. The unpublished notes of Prof. Condon, formerly State Geologist, state that the back bone of the Coast range consists of argillaceous shales, which contain invertebrate and vertebrate fossils, frequently in concretions. Some of the latter are Physoclystous fishes, with strongly ctenoid scales. To this formation, Dr. Condon gives the name of Astoria shales. Above this is an extensive tertiary deposit, rich in Mollusca, which is usually interrupted by the central elevations of the mountain axis. Prof. Condon refers this to an Upper Miocene age, under the name of the Solen beds. On the flanks of the mountains,

this is overlaid by a pliocene formation, containing some of the fossils of the Equus beds of central Oregon. This is both underlaid and overlaid by basalt, and other volcanic products.

The regions of the John Day river and Blue mountains, furnish sections of the formations of Central Oregon. Above the Loup Fork or Upper Miocene, there is a lava outflow, which has furnished the materials of a later lacustrine formation, which contains many vegetable remains. The material is coarse, and sometimes gravelly, and it is found on the Columbia river, and I think also in the interior basin. Prof. Condon calls this the Dalles group. It is in turn overlaid by the beds of the second great volcanic outflow. Below the Loup Fork follows the Truckee group, so rich in extinct mammalia, and below this a formation of shales. These are composed of fine material, and vary in color, from a white to a pale brown and reddish-brown. They contain vegetable remains in excellent preservation, and undeterminable fishes. The *Taxodium* nearly resembles that from the shales at Osino, Nevada, and on various grounds I suspect that these beds form a part of the "Amyzon group" (this Journal, 1879, p. 332), with the shales of Osino and of the South park of Colorado. Below these, is a system of fine grained, sometimes shaly rocks of delicate, gray buff and greenish colors, containing calamites, which Prof. Condon calls the *Calamite* beds. Their age is undetermined.—*E. D. Cope.*

GEOGRAPHY AND TRAVELS.[1]

Arctic Voyages.—The east coast of Greenland from 69° N. lat. to 65° 18′ has never been laid down until the past summer, when the Danish man-of-war steamer *Ingolf*, reached that part of the coast, sailing from Iceland. Having fixed the positions of some high lands south of Scoresby land, the Danish Hydrographic office has been able partly to fill up this blank on their maps.

It was also found that the ice cold water of the sea bottom, never passes the submarine heights stretching from the Faroe islands to Iceland, and that the depth of the sea decreases considerably in about N. lat. 67°, where it varied from 150 to 200 fathoms, and large icebergs were met with.

Further to the eastward, the temperature of the deeper water rose gradually, while on the surface the rise was sudden—in one case from 1° to 7° C. [33°. 8 to 44°. 6 F.] in an hour; in a distance of five miles the depth of the sea increased from 160 to 505 fathoms and in the Gulf stream to 1005 fathoms.

An immense bank was discovered, running from the north-west coast of Iceland, almost to the Greenland coast, and helping to keep the cold polar streams from the Atlantic.

M. Kornerup, a member of the recent Danish expedition into

[1] Edited by Ellis H. Yarnall, Philadelphia.